

## Principles of Ecology

## Reviewing Vocabulary

Match the definition in Column A with the term in Column B.

## Column A

- \_\_\_\_\_ 1. Tiny organisms that break down and absorb nutrients from dead organisms
- \_\_\_\_\_ 2. Obtains energy by feeding on other living organisms
- \_\_\_\_\_ 3. Step in the passage of energy and matter through an ecosystem
- \_\_\_\_\_ 4. Place where an organism lives out its life
- \_\_\_\_\_ 5. Relationship between species in which one species benefits at the expense of another
- \_\_\_\_\_ 6. Manufactures nutrients using energy from the sun or from chemical compounds
- \_\_\_\_\_ 7. Collection of interacting populations
- \_\_\_\_\_ 8. Simple model for showing how matter and energy move through an ecosystem
- \_\_\_\_\_ 9. Eats dead organisms
- \_\_\_\_\_ 10. Portion of Earth that supports life
- \_\_\_\_\_ 11. Relationship between species in which one species benefits and the other is neither harmed nor benefited
- \_\_\_\_\_ 12. Network of interconnected food chains
- \_\_\_\_\_ 13. Relationship between species in which both species benefit
- \_\_\_\_\_ 14. Study of interactions among organisms and their environments

## Column B

- a. autotroph
- b. commensalism
- c. decomposer
- d. food chain
- e. food web
- f. heterotroph
- g. parasitism
- h. scavenger
- i. trophic level
- j. habitat
- k. community
- l. biosphere
- m. ecology
- n. mutualism

## Section 2.1 Organisms and Their Environment

*In your textbook, read about organisms in ecosystems.*

For each statement below, write true or false.

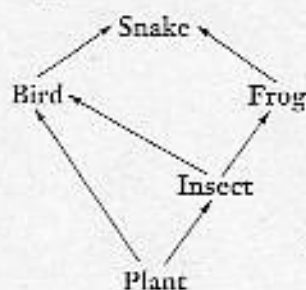
- \_\_\_\_\_ 1. A habitat is the role a species plays in a community.
- \_\_\_\_\_ 2. Habitats may change.
- \_\_\_\_\_ 3. A niche is the place where an organism lives its life.
- \_\_\_\_\_ 4. A habitat can include only one niche.
- \_\_\_\_\_ 5. A species' niche includes how the species meets its needs for food and shelter.
- \_\_\_\_\_ 6. The centipedes and worms that live under a certain log occupy the same habitat but have different niches.
- \_\_\_\_\_ 7. It is an advantage for two species to share the same niche.
- \_\_\_\_\_ 8. Competition between two species is reduced when the species have different niches.

Complete the table below by writing the kind of relationship described on the left.

Relationships Among Organisms	
Description of Relationship	Kind of Relationship
9. Organisms of different species live together in a close, permanent relationship.	
10. One species benefits and the other species is neither benefited nor harmed by the relationship.	
11. One species benefits from the relationship at the expense of the other species.	
12. Both species benefit from the relationship.	

*In your textbook, read about how organisms obtain energy and about matter and energy flow in ecosystems.*

Answer the questions below. Use the diagram of a food web to answer questions 1–7.



1. How many food chains make up the food web?  
\_\_\_\_\_
2. Which organism is an herbivore?  
\_\_\_\_\_
3. Which organism is an autotroph?  
\_\_\_\_\_
4. Which organism is a third-order heterotroph? To what trophic level does that organism belong?  
\_\_\_\_\_
5. Which organism is an omnivore?  
\_\_\_\_\_
6. Which organisms belong to more than one food chain?  
\_\_\_\_\_
7. Which organism belongs to more than one trophic level?  
\_\_\_\_\_
8. What are decomposers? Where would decomposers appear in this food web?  
\_\_\_\_\_  
\_\_\_\_\_
9. What does a pyramid of energy show about the amount of energy available at different trophic levels of a food chain?  
\_\_\_\_\_  
\_\_\_\_\_
10. Why do different trophic levels have different amounts of energy?  
\_\_\_\_\_  
\_\_\_\_\_